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Volume 3

Critique of Land Management Planning

Organization and Administration

Volume 3

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Executive Summary

This report is a technical critique specific to the way the USDA Forest Service organized and administered the land management planning process outlined in the National Forest Management Act of 1974 (NFMA). Our goals were to identify lessons learned during the first decade of integrated resource planning and to make recommendations to improve our organization and administration of integrated resource planning. Rather than take a "snapshot" of the current status of Forest Service land management planning, we tried to capture how planning has evolved over the past decade.

We used a modified Delphi survey technique to interview 76 Forest Service employees who have been involved with the planning process at all levels and in numerous capacities, including line officers, resource staff officers, planners, resource specialists, analysts, and functional directors. We also contacted 16 people in Forest Service Research (at least one person from each experiment station) to solicit their insight on the National Forest System's land management planning process. Interviews were structured around a questionnaire, which provided focus but also allowed for a wide-ranging discussion of issues related to the organization and administration of NFMA. In addition, we considered comments offered by members of the public.

We learned during our interviews that one of the major benefits from initiating integrated resource management as outlined in NFMA was the communication channels we built and strengthened with our clients, with Congress and the Administration, and among disciplines within our own agency (Recommendations 1, 2, 3, 8, and 18). If we are to maintain and increase grass roots support for integrated resource management, people within and outside the Forest Service must understand our goals and objectives. They must grasp the links among project implementation, forest plans, regional goals, and national programs. They must feel that they are being heard and that their issues and concerns are being considered.

We were told that while the Chief must continue to provide timely and relevant policy and program direction for integrated resource planning, he must minimize "nuts and bolts" program direction and excessive oversight. Regions and forests must have the flexibility necessary to address local issues, opportunities, and concerns, while maintaining a link to national programs (Recommendations 4, 12, 13, 16, 17, 18 and 23). National oversight should be limited to laws, regulations, and national policy.

Many of the problems identified relating to the organization and administration of the land management process are related to the fact that our funding, communications, scientific knowledge, and even politics are organized or provided

by function (Recommendations 5, 7, and 11). If we are to achieve truly integrated resource management, we must break these functional ties. We must convince ourselves and the public that we are committed to integrated resource management—to managing forests based on desired future conditions, not on output levels for traditional commodities.

The development of integrated forest plans suffered because we did not adequately define the process before we started (Recommendations 6, 14, 19, 20, and 21). We were told it was similar to trying to ride and assemble a bicycle at the same time. There were numerous false starts as direction changed. We lost credibility because we missed schedules promised to the public and Congress. We must take advantage of the people in Forest Service Research who can identify and develop management and social science techniques for improving integrated resource management activities.

Related to the lack of a clearly defined planning process were the effects of planning on those involved in the process (Recommendations 9, 10, 15 and 22). We were told that planning was an unbelievably stressful assignment, with little perceived chance for advancement or recognition. We must recruit talented, creative, and energetic leaders with strong interpersonal skills for our planning efforts, but if we are to retain these people, we must anticipate problems, monitor conditions, and take preventive actions so they can meet the challenges and stress associated with their jobs.

Finally, we must ensure that the Forest Service continue to be a world leader in natural resource management (Recommendations 24 and 25). To do this, we must stay on top of global issues and be ever-mindful of the future. In particular, we need to be more sophisticated in forecasting and evaluating the impacts of possible future scenarios on natural resource management and use, and must analyze the possible effects of future trends on forests, then build this analysis into our forest plans.

Introduction

Overview

This report is a technical critique specific to the way the USDA Forest Service organized and administered the land management planning process outlined in the National Forest Management Act of 1974 (NFMA)—referred to as *integrated resource planning*. Our goals were to develop some conclusions from the lessons learned during the first decade of integrated resource planning and to make recommendations to improve our organization and administration of integrated resource planning. Rather than take a "snapshot" of the current status of Forest Service land management planning, we tried to capture how planning has evolved over the past decade.

The technical team responsible for this portion of the national *Critique of Land Management Planning* consists of the following people: Jerry Schmidt, Forest Supervisor, Routt National Forest (technical team leader); Berwyn Brown, Forest Planner, Tonto National Forest; Jim Ehlers, Deputy Forest Supervisor, Allegheny National Forest; Doug Glevanik, Regional Group Leader for Plan Implementation and Analysis, Region 1; Pamela Jakes, Research Project Leader, North Central Forest Experiment Station; Roberta Moltzen, Deputy Forest Supervisor, Boise National Forest; and Ed Ryberg, District Ranger, South Platte District, Pike and San Isabel National Forests.

Methodology

Our findings are based on interviews with 76 Forest Service employees who have been involved with the planning process at all levels and in numerous capacities, including line officers, resource staff officers, planners, resource specialists, analysts, and functional directors. We also contacted 16 people in Forest Service Research (at least one person from each experiment station) to solicit their insight on the National Forest System's land management planning process. Rather than conduct a random sample of Forest Service employees, we used a modified Delphi technique to gather the opinions of those we felt were experts in land management planning or Forest Service organization. The Delphi is a survey technique "for eliciting and refining opinions of a group of people" (Weatherman and Swenson 1974). The technique is especially useful for problems that do not lend themselves to precise analytical techniques (Linstone and Turoff 1975)—an analysis of Forest Service land management planning would certainly qualify on this basis. This means that we do not have any data, as such, to report; rather, we present a collection of stories and perceptions regarding land management planning. In addition, we have considered the comments offered by the public which for this subject were only a few of the several hundred people who commented on the *Critique of Land Management Planning*.

Through interviews and written comments, we gathered perceptions of the way we initiated integrated resource planning, how the process evolved, and where we stand now. Interviews were structured around a questionnaire (see Appendix), which provided focus but also allowed for a wide-ranging discussion of issues related to the organization and administration of NFMA. The responses we present are highly variable, but this variability is the result of our decentralized organization. Because each forest's situation and approach were unique, the planning experiences were unique—what may seem to be inconsistencies in results are caused by these varied experiences.

Delineation of Major Topic Areas

The analysis and documentation for this report are organized into the following topic areas:

1. ***NFMA Integrated Resource Planning.*** To what extent did Forest Service employees and the public accept the NFMA philosophy of integrated resource planning?

2. ***Organizational Structures for Planning.*** What organizational structures developed to achieve integrated resource planning?

3. ***People Assigned to Planning.*** Who was assigned to land management planning, what were their responsibilities, and how effectively did they function?

4. ***NFMA Policy and Direction.*** How well did we develop and transmit policy and direction relating to NFMA from the national and regional offices to those actually doing the planning in the field?

5. ***Impacts of Planning on People.*** What were the effects of this new planning effort on the people involved?

6. ***Management Models and Organizational Linkages.*** What management models and organizational links were in place or available to help us meet the requirements of NFMA?

7. ***Financial Resources for Planning.*** How did we allocate financial resources to achieve our planning goals?

8. ***Allowance for Flexibility.*** How did we allow for flexibility in the planning process and in plan content at the regional and local levels?

9. ***Schedules for Planning.*** How did we establish and meet schedules necessary in developing plans?

10. ***Exercise of Oversight.*** How did people in the Washington Office and the regional offices exercise oversight of the land management process, and how effective or useful was this oversight?

11. ***Future Issues.*** How did we deal with issues of the future in our plans? What follows are our findings, lessons learned, and recommendations.

Analysis

1. NFMA Integrated Resource Planning

Data and Analysis

The Multiple-Use, Sustained-Yield Philosophy

When the Forest Service began implementing the land management planning process, it was guided by a tradition of managing forest resources under the principles of the Multiple Use–Sustained Yield Act of 1960. Under that act, the Forest Service produced a multitude of plans focusing on the needs and management opportunities of individual functions. Plans for timber management, grazing allotment management, recreation, and transportation were typically prepared with only minimal consideration of how actions outlined in these plans would affect other resources. Although some early planning efforts, called *multiple-use plans*, were developed to consider management options for various resources together in one plan, the functional perspective in all these efforts was still very much in the forefront, with some resources dominating others.

Acceptance and Application of NFMA Philosophy Within the Forest Service

Under NFMA, the Forest Service was directed to implement integrated resource planning, which held management decisions accountable for their impact on all resources.

It was difficult for the agency to give up its functional approach to planning, but slowly, on some forests, a shift from functional planning to integrated resource planning did begin to occur. Early on, the interdisciplinary team concept worked well for a few forests early on to produce some integrated analysis and to define goals with a set of practices and associated costs to accomplish the goals. The intent in forming interdisciplinary teams was to bring together specialists from several functions who would ensure integrated resource planning by considering problems collectively rather than separating them along functional lines. But in many cases, the interdisciplinary teams produced plans that were integrated only to the extent that they laid out multidisciplinary standards and guidelines for managing timber and other resources. Some of the people we talked to described this as the era of "cooperative functionalism."

As planning progressed, the people involved realized that the NFMA philosophy of integrated planning made sense, so it began to sell itself. Planning

teams became more interdisciplinary and more familiar with NFMA planning regulations. Emphasis on outputs and single-resource plans began to diminish as the new plans focused on desired future conditions and on the changes that needed to be made "on the ground" to reach that condition. Through this planning effort, we obtained a better understanding of how resources interact, and as a result, we developed better integrated prescriptions. However, we need to continually educate those in the agency not directly involved in planning on the importance and requirements of NFMA, so they can understand, and eventually accept and integrate into their jobs, the philosophical changes taking place in the agency.

Acceptance of NFMA Philosophy by Users

As a result of the public involvement requirements of the NFMA planning process, national forest users became more actively involved in the management of the forests. Some of these users recognized and embraced the change in philosophy because it resulted in a better understanding and analysis of resource and value tradeoffs. Some were encouraged that amenity values were being recognized, and that the effects of commodity uses on other values were being considered. Other users resisted the change because it seemed as if the agency was shifting away from that user's priority use.

Many people felt that the Forest Service placed far too much emphasis on commodities in initial planning efforts. The role of prescriptions and land allocations in achieving desired future conditions was generally not realized. In some places, planners and managers viewed standards and guidelines as mitigation measures whereas, in other places, standards and guidelines were considered as resource direction. (Note that the word *planner* is generally not used in this report as an official title, but rather is used to denote someone involved in planning.) Users and forest planners recognized that every acre would not be managed for all resources. The NFMA planning effort is a big change from the past, and forest users, just as Forest Service personnel, need to thorougly describe, understand, and visualize the NFMA process.

Conclusions

Forest Service employees and the public need additional education regarding the NFMA management philosophy. People must understand that NFMA mandates a change in planning focus—no longer is our goal a specific output level for a given resource, but rather some desired future condition for the forest.

Despite the intent of NFMA, we generally continue to operate on a functional basis, which is troublesome to many people both inside and outside the organization. We continue to manage resources independently, with planning coordination among resources often only an afterthought. This is primarily because our scientific knowledge, communications, and politics, both internally and externally, are organized or provided for along functional lines. We need strong functional excellence and competence, but we also must strengthen our ability to integrate and coordinate multiple uses and values.

Benefits gained from forest planning are significant. Forest Service personnel have developed enhanced analytical skills and greater awareness of the importance of analysis to integrated resource planning. We have made great strides in building and using integrated (or at least coordinated) data bases. We now have a better understanding of and compliance with NFMA and the National Environmental Policy Act of 1969 (NEPA). Finally, and most importantly, we have built bridges to our publics that are changing the way we manage the public lands.

2. Organizational Structures for Planning

Data and Analysis

In the beginning, the organizational structures created to produce forest plans varied widely. In many cases, this was as much a function of budgets as perceived local planning needs. The implementing regulations for NFMA required national forests to establish interdisciplinary teams (see Topic Area 1) and to use them to coordinate an integrated approach to planning. Interdisciplinary teams generally consisted of a core team, along with resource specialists brought in as needed to address certain issues or resources. However, the responsibility for planning on individual national forests was typically assigned to this core team, which was usually made up of the planning staff officer, the forest planner, and an analyst, at the minimum.

No one structure emerged as the planning structure—many organizational structures were, and continue to be, used. Organizations to produce integrated resource plans ranged from a one-person team operating independently, to a full-time core team with access to specialists, to teams with full-time specialists. As an example, one region developed NEPA Quality Teams, which we were told was an excellent way to help the forests in their planning efforts. These teams helped ensure that the plans being developed were consistent and followed NEPA regulations. They also provided positive feedback to interdisciplinary teams.

Some of the people we interviewed urged us to consider using self-managing teams, with no interdisciplinary team leaders or planning staffs. They felt that the planning effort was too structured, with so many levels involved that planning was removed from the day-to-day forest management issues. They thought the use of self-managing teams would allow greater flexibility in planning. We were also told that the Forest Service should consider restructuring all levels of the organization to achieve integrated management.

Conclusions

The traditional Forest Service organization is set up to meet yesterday's objectives. Many people believe the time is ripe to make dramatic changes in the way we are organized to meet the challenges of the future. A nontraditional, nonfunctional planning organization would facilitate future planning and the implementation, monitoring, and evaluation of existing forest plans.

3. People Assigned to Planning

Data and Analysis

Assigning People to Planning Teams

A wide range of people served on the planning teams. In some cases, people requested involvement or competed for the opportunity to work in planning. Many did an outstanding job of developing their skills in planning and analysis, public involvement, and computer use; they also made a significant contribution by helping the rest of the Forest Service understand the planning requirements and by providing the planning leadership so desperately needed. But in many other cases, there were people assigned to planning teams without an interest in or an aptitude for planning. Numerous people were selected for core teams based on key resources identified in NFMA. In other situations, people were selected to ensure that a specific forest's key resource areas were covered. Although these people generally had the skills necessary for managing their specific resources, they often lacked the tools for, or even a basic understanding of, the planning and analysis process required by NFMA. Also, poor performers were sometimes assigned to planning, because the perception at that time was that planning was a low-priority job.

Early on, the assignment of resource specialists to interdisciplinary teams caused these teams to function primarily in a multidisciplinary mode—they were a collection of individual specialists with no real team characteristics. The membership and leadership of planning teams were often chosen with little forethought by those responsible for building teams.

On some forests, the primary staff officers served on the core team. On other forests, line and staff officers were involved on steering committees "to advise" interdisciplinary teams. In most cases, the full management team was not involved in planning to any great extent.

Gradually, most forests hired operation research analysts to address the analytical requirements of NFMA. Sociologists and economists, among other nontraditional specialists, also were added to the teams. Even with these changes, resource planning was driven by the need to produce output targets, such as timber volumes.

Initially, planning was generally viewed as a collateral duty, something to be squeezed in between the "real" duties. Most importantly, people often felt they had no choice—they were forced to be planners or analysts and were thrown into an unknown area with little support.

Planning continually tapped specialists' time and energy. Because many of the core planning team members maintained responsibilities in their own functional areas, their commitment to the planning process varied greatly. Such activities as achievement of timber targets, recreation operation and maintenance planning, and trail construction took precedence over the planning effort. Initially, planning often received only intermittent or inadequate attention. Later, when

specialists devoted most of their time to working on the forest plans, the resulting progress seemed to come at the expense of resource areas.

In general, the cultural diversity of the core planning team was not considered when selecting members. Emphasis was placed on getting what was thought to be the right mix of skills and specialties in place. No special effort was made to recruit people for cultural diversity. As the planning process evolved, diversity of planning teams continued to be a low priority.

Adherence to Functionalism

Regardless of the planning organization, the resource people on interdisciplinary teams, both those on the core teams and those serving as specialists, tended to maintain their traditional biases of resource functionalism—they continued to champion their own resource area(s). This worked against achieving integrated resource planning. Interviews revealed that planning decisions were often influenced by the stronger members of the interdisciplinary team or other key players on the forest, rather than by the integrated needs and opportunities on the forest.

As more people were drawn into the planning process through service on interdisciplinary teams, the functional barriers slowly began to break down. Functional people became more aware of the importance of other resources and the philosophies guiding the management of those resources. The decision to assign specialists full time to core planning teams seemed to help facilitate a shift from multidisciplinary planning to more integrated planning. But despite some progress toward integrated management, a feeling still existed that interdisciplinary efforts were being thwarted by functionalism. Turf battles continued, with some people trying to ensure that their areas of responsibility were covered regardless of the planning issues, concerns, and opportunities. Other people worked well together, developing planning approaches that ensured progress and the consideration of all viewpoints.

Forest Planning—Responsibility Versus Ownership

To minimize impacts on the ranger districts, planning activities tended to be centralized in the supervisor's office. While the motives were good, this decision to centralize meant that many district personnel and those not directly involved in forest planning felt no ownership or commitment to the plans. Although the interdisciplinary teams generally viewed themselves as facilitators for planning, many people on the forests viewed the interdisciplinary team as responsible for developing the plan and getting it out of the way. As the interdisciplinary team concept became more widely applied and more specialists were called in on an ad hoc basis to serve on the teams, ownership of the plans did broaden. However, planning essentially remained something to be completed and was not seen as the guiding philosophy, embraced by all, for integrated resource management.

Reflecting Public Values in Planning

Attempts to understand the cultural differences of national forest publics were made by increasing the number of functions involved in planning and the number of sociologists on teams. Functional specialists attempted to understand and incorporate the needs of their economically and culturally diverse constituents. A recognition of the need and value of diverse planning teams in terms of not only professional disciplines but also in terms of ethnic and cultural backgrounds grew with planning and subsequent implementation. The diversity of the teams is greater now than at the start of the planning process.

In general, the planning process viewed the cultural diversity of the users as an analysis question. Diversity of the public was considered in varying amounts of detail. In many cases, a technique based on human resource units and social resource units was used. Focus was on traditional Forest Service values, rural values, and ethnic group values. In some cases, studies were contracted with outside consultants to look at the culturally diverse needs of the public.

Conclusions

For those serving on planning teams, functional knowledge is not enough—they also must demonstrate an ability to work as members of a team and as consensus builders. To produce truly integrated resource management plans, we must have a give-and-take among resource experts that produces consensus on obtainable and desirable future conditions for a forest.

Involvement in planning must not be limited to planners; resource experts and line officers must be involved to ensure successful plan development. We also must guarantee that all Forest Service employees and the public feel ownership of the plans.

Finally, we must ensure that the plans address the needs and values of our diverse constituents. We can accomplish this goal by developing more diverse planning teams and by listening to constituents and integrating their concerns into the forest plans.

4. NFMA Policy and Direction

Data and Analysis

Lack of Cohesive Policy Direction

The lack of clear policy and inadequate transmittal of policy to the field were found to be the most frustrating aspects of planning. From the beginning, there was confusion as the agency tried to implement planning before the planning regulations (36 CFR 219) were in place. Because of this lack of direction, some forests approached planning as just a rewrite of unit plans. To the people charged with the early phases of plan development, the process was similar to trying to ride a bicycle and assemble it at the same time.

There was direction in NFMA itself regarding which resources to consider in planning. A broad planning process, consisting of 10 planning steps, also was outlined in NFMA. Some direction came from regions in the form of regional guides. The Washington Office, regions, and some forests conducted training (formally and informally) on the intent of NFMA. The Eisenhower Consortium, a series of workshops describing planning requirements within NFMA, were generally viewed as ineffective.

The degree of specificity and the comprehensiveness of direction were highly variable among functional areas. For wildlife and fish, there was very little direction. For timber, the direction was detailed and comprehensive. The direction given for recreation was very broad and philosophical.

As the process evolved, the area of policy development continued to be a major hindrance in planning. The Secretary of Agriculture's office became heavily involved, which often resulted in policy changes. Changes in direction seemed to be issued daily, often occurring after much work had been accomplished by regions and forests.

The intent of the planning process was not clearly understood. Many people, both within and outside the agency, did not recognize the role of prescriptions and land allocations in achieving a desired future condition. Instead of focusing on how the land was to be managed and what changes were needed on the land, many focussed their attention on the projected outputs of the plans. This concern about projected output levels influenced direction to planning teams, and as a result, more emphasis was placed on the outputs and less on the treatment of the land.

Efforts by the Regions To Solidify Policy and Direction

In an attempt to minimize confusion and impacts on the forests, regions identified "lead forests" to develop procedures and guidelines for forest planning. Policy was slow to develop; the directives system and memos were not specific. The direction that was received was not coordinated and seemed to be coming from everywhere, with little distinction between what was simply advice and what was policy. Most of the dialog was between the regional office and the forest planning teams, which left the forest management teams out of the information and decision loop.

The lead forest concept did not work well because the direction never seemed to stop changing, and the other forests in the region could not wait for the lead forests to work through the problem areas. As time went on, individual forests developed their own interpretations of Washington Office or regional office direction and solutions for their key issues.

To help ensure consistency in planning within a region, at least one region developed a notebook outlining direction. The notebook assembled policy and reference material in one location and clearly identified what was policy

(mandatory) and what was suggestion. Interdisciplinary teams found this immensely helpful.

Some regions developed a regional management area structure and other requirements to ensure consistency between national forests with similar social, political, economic, or environmental conditions. The decision to use the computer-based optimization model FORPLAN for national forest planning brought varying degrees of uniformity. Regional office interdisciplinary teams were developed and actually worked with forests in getting started and in writing at least the boilerplate for forest plans and NEPA documents.

A major advance in most regions was the development of milestones to serve as checkpoints in the planning process. These milestones specified exactly what had to be covered with each step of the forest planning process. People involved in planning felt that this worked extremely well.

Conclusions

We never truly overcame the confusion that resulted from trying to implement planning before the regulations were in place. We also were hampered by constantly changing policy and direction. Although it is probably impossible to set policy and direction that will remain constant throughout the planning process, we must strive to minimize changes. Changes that must occur should be limited to those mandated by law or Department of Agriculture policy.

We must clearly define what is required in a forest plan (mandatory) and what is "bells and whistles" (discretionary). The lack of distinction between mandatory and discretionary plan direction contributed to the confusion surrounding forest planning. Roles and responsibilities at each organizational level must be clearly defined before planning starts. Finally, we must ensure that political concerns are identified and addressed within the process, not just as a decision at the end of the process.

5. Impacts of Planning on People

Data and Analysis

Effects of Planning on Planners

The planning process was portrayed, or marketed, as an intense but relatively short-term assignment with the potential for such rewards as self-satisfaction and career advancement. However, it soon became apparent that incentives were practically nonexistent and stress unbelievable. In addition, there were minimal career ladders for planners, resulting in a feeling of being locked into planning with no way out. It was the perception of some involved in planning that management did not really care about the sacrifices and extra effort required to produce the plans and that their work was going unrewarded. A fundamental problem was that Forest Service employees were not convinced that the agency benefited from forest planning. It seemed like one more layer of bureaucratic nonsense. Also, people in the Forest Service were generally

not sure of what a good plan was composed. Not knowing a good thing when they saw it, how could they fully appreciate it?

The ambiguity of planning direction and policy continually frustrated interdisciplinary team members. Stress was intensified by the perception of planners that they would never finish the job. Effective team-building can often help relieve the stress created by planning, but this was often lacking. Most forests or regions did not recognize the need to rotate people through the planning jobs. Although some forests offered stress management training, planners often did not have the opportunity to attend. Some people simply burned out.

In some cases, planning became a sought-after assignment because people felt they could have a real impact on resource management through the planning process. But the fear of becoming trapped in planning persisted.

Stress levels still remain high for many people in planning. Some planners perceive that work-related personal problems—divorce, alcoholism, and health problems—occur more frequently among planners. The Forest Service has begun to recognize the effects of stress and long hours and is now offering more stress management training, as well as training in team-building.

The suggestion was made during our interviews that one way to increase the self-esteem of those working in planning and to focus on their importance to the management of a forest was to "market" planning and reward those who contribute to its quality. We should give forest planning an identity with its own traditions, values, and maybe even a logo. If we could market planning to our employees and users in the same way we have marketed forest fire prevention, we will have come a long way in achieving integrated resource management. Effective team-building can often help relieve the stress created by planning.

Training and Skills Development

Training—including training to develop the technical skills necessary for planning—for interdisciplinary teams to facilitate team participation and to cope with stress varied from very little to adequate. Many people felt that we did not do a good job of training people for planning, mainly because planning was viewed as a small part of their job.

With planning experience, people developed new skills. In most regions, however, the "team" skills developed slowly, and many team members continued to work as individuals. On some forests, weak team members were replaced. Gradually, real team work began to develop, as well as public involvement skills and the profession of "planning."

Regarding training, someone made the suggestion that we reinstitute or broaden the Michigan State University and Oregon State University Fellowship

Programs to focus on planning rather than, or in addition to, economic analysis. This step would help establish planning as a profession in the Forest Service.

Public Involvement

The identification of issues in forest plans necessitated public involvement. Traditional approaches to public involvement—such as newsletters, open houses, and workshops—were initiated. Other Federal, State, and local agencies also were brought into the process.

The involvement of the public helped to highlight the need for more local flexibility in planning. Near the end of the process, primarily between the draft and final plans and during appeals resolution, involvement with the public revolved around conflict resolution and consensus building. The need for better training of Forest Service personnel in these areas quickly became apparent.

In a concern linking scheduling and public involvement, many planners felt strongly that our original planning audience was lost simply because the plans took so long to complete. Our new audience was not involved in the early stages of planning and therefore did not feel any ownership in the plans. In addition, many of these new people held polarized viewpoints.

Finally, when involving our publics in planning, we need to reevaluate our traditional ways of talking and listening. We need to ask ourselves:

1. Should we use the support base we have developed and target our outreach to interested publics, involving them more frequently throughout the process, rather than trying to reach all possible interested parties?

2. Is our level of training adequate to handle the job to be done? How is this related to how we are organized to accomplish our mission?

3. How can we best facilitate diverse groups of publics working together to improve forest plans?

4. Do our traditional methods of public involvement focus more on informing rather than on public participation for developing objectives and determining the real issues, concerns, and opportunities and for developing objectives?

5. Do our appeals focus primarily on issues or on misunderstandings? Can we take steps to clear up misunderstandings and minimize conflicts?

Conclusions

We must anticipate problems, monitor conditions, and take preventive actions so our people can meet the challenges and stress associated with their jobs.

Our goal is to make planning a desirable, sought-after assignment in the Forest Service. Regarding the public, we must keep our promises to them in terms of addressing important issues and meeting schedules. We must not play games with the public—we must uphold and support the intent of NFMA.

6. Management Models and Organizational Linkages

Data and Analysis

In this section, the word *model* refers to the framework or structure within the Forest Service that facilitates continuity in program areas. For example, a model could describe the links between the outputs generated by the Resources Planning Act of 1974 (RPA) and NFMA, or a model could outline processes for budgeting, monitoring, and evaluating forest plans and for collecting data for analysis and decisionmaking.

Another technical team is analyzing the analytical and social models used in planning (that is, FORPLAN and IMPLAN), so they will be discussed only to the extent that they relate to management and budget models.

Linking RPA, Regional Plans, Forest Plans, and Projects

A conceptual model linking national policy to project-level planning existed. In this model, information on situations (supply capabilities and local demands as documented in the assessment of the management situation) would be aggregated upward to the regional and national levels, while targets and objectives, consistent with supply capability and demand, would be disaggregated downward from the Washington Office to regions, forests, and ranger districts based on national RPA strategy.

In practice, the attempts to link RPA, regional planning, and forest planning did not work as well as anticipated because they were being developed independently. On the input side of RPA, the initial data used were largely consistent with data submitted by the regions. However, the refinement of standards and guidelines in forest plans did not coincide well with the Secretary of Agriculture's direction for disaggregated targets by resource function. Consequently, the use of RPA in the initial stages of planning to set long-range goals or targets for planning frequently resulted in defined output levels that were inconsistent with resource capability requirements described in the planning regulations (36 CFR 219.4).

The Forest Service did use forest plan data for input to the 1990 RPA Program draft. All the RPA strategies, except the high-bound 1985 program, are consistent with forest plan capabilities and direction.

As planning progressed, the understanding of the relationship between national policy and project-level planning varied considerably. The process was continually evolving so forests were subjected to numerous changes in direction.

Linking NFMA and NEPA

Neither the Forest Service nor its clients generally understood the extent of the NEPA work required to implement a forest plan. Initially, we believed that plans would be implemented and further NEPA documentation would normally not be needed. It took a long time for the Forest Service and others involved to establish that the NEPA requirements for planning and project implementation would be a two-step decision process with (1) forest plans and related environmental impact statements establishing broad programmatic goals and objectives and general disclosure of environmental effects and (2) separate site-specific analyses providing detailed objectives and disclosure of environmental effects for specific project decisions. Barriers to acceptance of the two-level decisions process for NEPA compliance included the following:

1. Public and internal perception that forest plans provide detailed implementation actions.

2. The perceived need by the public and Forest Service analysts to address extensive cumulative impacts for certain projects.

3. The variability of skills on districts to make project-level analyses.

4. Conflicting delegation of responsibilities to ranger districts regarding environmental analysis.

Eventually, each region worked out a process for linking NFMA and NEPA. However, the general public perception that forest plans should provide detailed implementation actions continued to generate controversy as plans were released.

Linking Forest Planning and Budgeting

In recent research on emerging issues for national forest management and use, inconsistencies in priorities established during the planning and budgeting processes were identified by people both inside and outside the National Forest System as the second most important issue to be faced by national forest managers and users over the next 10 years (Gregerson et al. 1989).

There was hope that forest plans would be the base for budgeting, but management models linking forest plans to the budget process were not in place. We lacked an accurate, consistent program for estimating the costs of activities proposed in the plans. Cost estimates were based on established management practices, resource emphasis, and organization. In some cases, coefficients for

prorating outputs were developed from ADVENT program budget information. Early versions of FORPLAN had a limited ability to track costs. Because of these factors, there was no clear linkage among RPA, regional, and forest budgets.

Some units constrained their budgets when developing their plans, while others decided that any budget was attainable as long as it was supported by the analysis. As updated versions of the FORPLAN model were developed, costs could be more precisely tracked and discounted. However, in general, there was no direct relationship between funding and activity codes used in the budgeting process and cost coefficients in the FORPLAN model. As forests began to implement plans, individual regions developed their own approaches to formulating budgets consistent with forest plans. Today, most of the forest and regional budgets are tied to needs outlined in their plans. However, the cost of implementing forest plans—for example, additional NEPA compliance, public involvement, and monitoring—is higher than expected.

Need for a Model To Evaluate and Monitor Forest Planning

The need to monitor and evaluate the implementation of the forest plans was not clearly understood when we initially defined the planning process. There was such a push to produce the initial plans in a timely manner that these follow-up activities were essentially ignored. By the time final plans were released, monitoring and evaluation usually meant that plans contained a monitoring section meeting minimum NFMA standards. On the other hand, some plans contained monitoring commitments that were too involved and could not be realistically accomplished. When plans were implemented, monitoring was expanded to include wildlife capability models, implementation schedules, and project monitoring schedules. Some monitoring has taken the form of lists. It is apparent that we need to further identify and develop effective monitoring and evaluation procedures.

Forest Service researchers feel that they can provide valuable guidance in the evaluation and monitoring of forest planning. There is a large body of literature addressing questions relating to the evaluation and monitoring of programs, and research can identify and develop models that would be applicable to forest planning.

Amending Forest Plans

There was an initial recognition that forest plans would need to be amended based on new information or changing demands or conditions on the ground. However, on many forests, so much effort went into developing forest plans, there was little attention given to the process for changing plans. It was commonly held that "We will cross that bridge when we come to it."

Data Bases

Planning is based on data contained and maintained in standardized data bases. Forest planners exerted much effort collecting and building planning data bases. However, the kind of data and the degree of detail required for land management planning was never consistently or clearly defined.

Emphasis was on using existing data with little additional data collection. In some cases, the accuracy of existing data was questioned. In many instances, data standards varied, one example being the different ways we typed old growth. There is agreement that we lacked a clear and consistent understanding of the kind of information and degree of detail needed for planning purposes. Once the plans were completed, there was very little use for the planning data bases, and even for the implementation of forest plans.

Role of Research in Model Development

During initial efforts to define the planning process, Forest Service Research was involved in identifying and developing planning models. However, once FORPLAN was selected as the analytical model, the role of Forest Service Research in planning was minimal. Forests and regions turned to Research for growth and yield models and to help identify research needs, but there was little additional Research input to the planning process itself.

Conclusions

Integrated resource planning should not have been initiated before the Department of Agriculture and the Forest Service agreed on the planning model. This model would outline the process, particularly the linkages between planning at various levels of the organization and the relationship between planning and the budget process. It would establish decision points and set milestones for measuring progress. It would outline ideas for amending, monitoring, and evaluating plans. The model would clearly define responsibilities of various administrative levels. For example, it would state that it is the responsibility of the Washington Office to set strategic goals and direction that do not clash with the Administration's viewpoints. The forests must be given the freedom to identify tools necessary for analyzing their issues, concerns, and the data needed to carry out the analysis. Where necessary, regions would be responsible for assuring data and analytical consistency between forests and regions.

7. Financial Resources for Planning

Data and Analysis

Costs of Planning

Initially, forests had no idea what planning would cost. Because it was a high priority, planning generally received the funds and personnel it needed without

any real accountability. Many Forest Service personnel not involved in planning felt that the forest management teams were reluctant to question planning funding requests because of the pressures to complete the plans.

Most of our cost estimates were unrealistically low. When sincere efforts were made to estimate costs, the results were often dismissed as being too high. One of the problems with determining a true cost estimate for planning was that although the budgets for planning teams were set up on forests and in regions out of identified appropriations, costs for others involved in the planning efforts, such as resource specialists, were not budgeted and usually not tracked. Ultimately, the total costs of planning produced resentment among many Forest Service personnel. There was the perception that the quality of our on-the-ground projects suffered because of resources diverted to planning and that this will become apparent during monitoring and evaluation.

Source of Funding for Planning

Initially, money was taken "off the top" for forest planning. However, as planning evolved, many felt that the timber and engineering functions would finance the forest plans because on most forests these functions had the most money available.

There was a feeling on many forests that they were not able to accomplish their normal program at an acceptable level and that the quality of programs and projects suffered because of planning impacts. In many locations, there was (and still is) a struggle between achieving traditional targets or objectives and achieving the goals of the plan in terms of desired future conditions. In reality, what we have been seeing on forests that have begun implementing plans is that the quality and quantity of projects and outputs have been much higher than under functional or units plans done in the past.

Conclusions

We have learned that planning, implementation, monitoring, evaluation, amendments, and future revisions must be recognized as a legal responsibility in managing national forest lands, and we must be given the organization and budget to do the job.

We must produce realistic estimates of plan costs and accurately tally the costs as they occur. People told us we may not need to spend more money on planning, but to spend our dollars more wisely. We should not spend our resources finding a multitude of answers to one problem; rather, we need to accept the answers we develop initially and produce plans, revisions, and amendments in which we believe.

The congressional budgeting and target development process, which continues to track dollars and outputs by function, is a major barrier to the implementation of integrated forest planning.

8. Allowance for Flexibility

Data and Analysis

Unique local or forest values and opportunities were recognized early in the planning process through the development of issues, concerns, and opportunities. However, with the exception of timber, guidance for establishing issues, concerns, and opportunities was loose. It was particularly difficult for the Forest Service, as an agency, to break with tradition and allow for flexibility in planning tasks and standards associated with timber. This resulted in high-powered analysis of the timber resource on units with minor timber values. Conversely, other issues of local importance were subjected to relatively less rigorous analysis.

Flexibility to address local issues varied among regions, but in general, flexibility tended to decrease nationally as prescribed technical analysis increased. In one region, flexibility was constrained because of the relatively rigid management area prescriptions that were required. In another region, a standard set of management area prescriptions was developed for consistency, but allowed adequate flexibility to address issues, concerns, and opportunities.

Service-wide, the flexibility to address local problems and opportunities was generally adequate, and it was recognized that social factors and values, in addition to economics, data, and models, would drive the plans. Not all resource staff areas participated to the same degree in identifying issues, concerns, and opportunities or in recommending processes and procedures.

Conclusions

It is the responsibility of the Washington Office to provide strategic program direction. The identification of local issues and selection of planning tools must be left to the forests. It is the responsibility of the regions to ensure data and analytical consistency between forests and regions where necessary.

9. Schedules for Planning

Data and Analysis

Schedules Disrupted by Changing Planning Direction

On most forests, state-of-the-art scheduling tools were used to develop detailed work plans and schedules to meet planning goals and objectives. There was a lot of effort expended, and the results were perceived as realistic and sound. Also, the entire Forest Service, at all levels, was committed to accomplishing the NFMA mandate to complete all initial plans by 1985. However, this is another example of where we were trying to learn how to "ride the bicycle before we had it assembled," as there were many things we did not anticipate that caused schedules to fall behind. It soon became evident that even the most considered and objective work plans and schedules were overly optimistic because the planning process had not been adequately defined. Planning steps

were described, but no one knew what tasks were involved in each step, and the process kept changing as it evolved.

Credibility of the Forest Service Suffered Because of Missed Deadlines

The apparent inability of the Forest Service to finish plans on schedule caused planning teams and the agency to lose credibility within the agency and with its publics. Considerable effort was expended revising schedules. In some cases, forests simply ignored schedules or quit using them.

Land management planning is complicated and very time consuming, and the specific reasons for some of the delays in releasing forest plans included:

1. Problems in using the FORPLAN model while it was still in the development stage.
2. Changes in planning direction, particularly concerning the appropriate emphasis on economic and commodity analysis.
3. Problems with matching results and expectations.
4. Delays imposed by the RARE II lawsuit.
5. Changes in the planning regulations.

Many planning teams were forced to put forth a maximum effort to meet a schedule and then had to change or start over, sometimes with little notice.

Conclusions

Once schedules are established for integrated resource planning, it is vital that they are met so that we maintain support and credibility. However, to develop realistic, attainable schedules, the forest planning process must be clearly defined and outlined, with few changes during the process itself.

The effects of scheduling all plans to be completed at the same time in all regions were phenomenal. To avoid these effects in the future, revisions and other planning actions should be scheduled as needed or as resources allow.

10. Exercise of Oversight

Data and Analysis

Department and Washington Office Reviews

The Department of Agriculture and the Chief's office conducted reviews of the draft and final forest plans and environmental impact statements. In the early stages of the planning effort, these reviews could be characterized as trial and error—"we don't know what we want, but we'll know it when we see it." The

"good points" of plans were recognized, and the field was directed to incorporate them through a series of memos resulting, in part, in the continually changing direction discussed in Topic Area 4. It must be stressed that quality control and technology transfer are important and legitimate roles for these organizational levels and that the reviewers were sincere in their efforts to improve the products of the planning effort. Nonetheless, the dynamic nature of this process resulted in frustration on the forests, where staff seemed to always be shooting at a moving target, and with reviewers, who were faced with the task of interpreting constantly changing direction. While frustrating to the people involved, this oversight process resulted in continuing incremental improvements to forest plans and to related environmental documents.

Regional Reviews

The primary means of control at the regional level was a review of planning documents at specific points in the planning process (checkpoints or milestones) (also see Topic Area 4 on milestones). Because the nature and depth of reviews varied regionally, opinions differ on the adequacy of regional reviews. Some of those surveyed felt that regional controls were too tight, considering the reviewers' limited amount of understanding of, and experience with, the planning process. Others felt that the early reviews were too loose, resulting in plans that were very diverse in quality, content, and feasibility of implementation. Additionally, there was a strong feeling that the reviews focused on the wrong issues. For example, many people stated that the emphasis placed on economics was not justified by public interest and that we were largely talking to ourselves and the Department on this issue. In this same vain, many felt that the emphasis in reviews on the production level of commodities was overkill, while the feasibility of implementation was largely ignored.

As time went on, the review process became more elaborate and time consuming. The effectiveness of the process remained inconsistent. Some felt that the reviews tended to create a "we/they" attitude between the forests and the regional office or the Washington Office.

As a result of the reviews, some regions became more active in providing field assistance to forests. Technical teams were set up in some regions to help forests prepare adequate plans and conduct meaningful reviews.

Finally, reviews tended to concentrate on process, outputs, and schedules rather than on land allocations, substance, and the big picture. They often failed to rigorously analyze whether the level of outputs called for in the plan could actually be produced.

Valuable products of the review process were the checklists that were developed to help determine the legal sufficiency of the documents in terms of NEPA and NFMA compliance.

People Involved With Planning

Planners told us that for effective oversight, it was vital that forest supervisors play a major role in defining overall planning goals and objectives. They also said that it was necessary for forest management teams to be involved in most major planning decisions and in planning reviews. Units with ineffective oversight shared two characteristics: (1) the forest supervisors had stayed passive and aloof from the process; and (2) the forest management teams were not involved. The lack of involvement by forest management teams helped generate the attitude among those not involved with planning of "let the planning team do it" and the feeling among those involved in planning of "let's get this done and get back to something productive."

As planning progressed, the forest-level management of this effort improved. Changing direction, delays, and effects on other programs forced forest management teams to become more involved. Additional support and expertise were provided, and more realistic time schedules were adopted. In some instances, regular planning staff and management team meetings were held to discuss planning decisions. As the pressure of meeting schedules was felt, there seemed to be an overriding faith that "let's just get the final plan out, and we can deal with any problems through amendments."

Conclusions

There was a struggle within the Forest Service to develop plans that are sensitive to local conditions and needs and appropriately address the concerns of special interest groups expressed at the regional and national levels. This issue is not unique to the planning effort but rather has been inherent to managing the national forests since their inception. This need to address the larger political or special interest issues in the forest plans has been the cause of many of the mid-process rule changes we have experienced—in short, much of the frustration and anguish in developing the plans has been the result of this need to express, on a local level, national concerns.

We need to agree on direction up front and to identify the roles and responsibilities for planning at each level. As we have stated elsewhere, but will reiterate here, we must establish planning processes and direction early before forests start revisions. Forest supervisors and other line officers must get involved and stay involved to ensure perspective.

We heard from those we surveyed that forest management teams need to broaden their focus from the details and requirements of the planning process to the intent of NFMA. They must clearly identify the decision criteria used in planning to the interdisciplinary teams and public. They must not delay in addressing issues in the plan, expecting to address them in subsequent amendments, to expedite plan completion.

11. Future Issues

Originally, some of the regions did a good job of addressing a few of the broader issues of the future, such as the need to maintain vegetative diversity,

to ensure the preservation of a portion of the old-growth timber, and to incorporate demographic projections into plans to provide for the need to accommodate the increased consumption of winter sports recreation and mineral development. There also were attempts to forecast population and technical change when assessing the local management situation, but other issues were not considered. The concept of addressing future issues—global warming, demographic shifts, diversified work force—is of growing importance and was identified by the technical team steering committee as an appropriate consideration for this report. The results indicate that there needs to be much more focus on the broader future issues.

Recommendations

Based on our findings and lessons learned, we present the following recommendations regarding the organization and administration of the Forest Service's land management planning process.

Continuations

We recommend that the following actions be strengthened, refined, and continued.

Recommendation 1

Statement of Recommendation

Forest supervisors should continue to ensure that forest plans are sensitive to the diverse cultural preferences, needs, and values of the public.

Discussion

Forest plans sensitive to the values and needs of the public are plans that are generally accepted by the public as fair and complete. Analytical tools such as human resource units and social resource units are currently available options for evaluating social impacts. It also is usually the case that more diverse planning teams produce plans that are sensitive to a wider range of values. Therefore, by assembling planning teams that are representative of the public we serve, we can hope to produce plans that are more acceptable to the public.

Recommendation 2

Statement of Recommendation

Line officers should continue to clarify the land management planning process so that employees and the public have realistic expectations regarding the decisions made at various levels of analysis.

Discussion

The public and Forest Service employees were confused as to what decisions would be made in the forest plans and what decisions would be left to project-level analysis. For example, the two-step decision process for meeting NFMA and NEPA requirements was widely accepted by those who understood the process. The problem was that few people understood the process, and therefore a lot of time was spent answering people's concerns that project-level decisions were being left out of the plans.

Recommendation 3

Statement of Recommendation

All line officers should continue to to strengthen communication and working relationships with political leaders and others interested in, or affected by, NFMA and the planning process.

Discussion

Political leaders and the public lacked a general understanding of the land management process, in particular the necessity of linking individual forest plans with national goals and objectives. We need to listen to what the public tells us regarding their values and priorities, and we must be able to demonstrate that the plans address their concerns while meeting national goals. By being responsive, we can continue to broaden "grass roots" understanding of the impacts and intent of NFMA and to strengthen the effect and support for national forest planning.

Recommendation 4

Statement of Recommendation

The Chief should continue to provide updates in policy and strategic program direction through the RPA process and minimize "nuts and bolts" program instruction.

Discussion

People expressed considerable frustration with the guidance received from the Washington Office and the Department of Agriculture. They agreed that while it is important to receive strategic program direction and perspective from Washington so as to strengthen the linkage between the Forest Service's national program and forest plans, selecting planning tools and addressing local issues must be left to the forests.

Recommendation 5

Statement of Recommendation

The Chief and regional foresters should continue to refine the system that links budget and program development to forest plans in order to facilitate integrated resource management.

Discussion

Both current functionalism and traditional functionalism impede integrated resource management. Because the Administration and Congress develop budgets along functional areas and set targets primarily for commodity outputs, the funds received by the regions and forests do not adequately reflect priorities and targets established in the plans. This results in an imbalance between

what is promised in the plan and what is achievable through funding. Forests also have received significantly less funding than necessary to fully implement the forest plans. This results in an eroding credibility with the public and in confusion when the Forest Service and Congress try to link national priorities and forest plans.

Recommendation 6

Statement of Recommendation

The Chief, regional foresters, and station directors should continue to ensure that Forest Service Research is involved in identifying and developing realistic and cost-effective techniques for analysis, monitoring of critical issues, and plan implementation.

Discussion

While Forest Service Research had much to offer in the areas of analysis, monitoring, and implementation, it had played a very limited role in the National Forest Systems's land management planning effort. Research can identify and develop management and social science techniques for improving these activities, and thereby improve the land management planning process.

Changes

The following are recommended actions we believe should be implemented to improve the organization and administration for Forest Service land management planning. They have been grouped by general topic, not necessarily topic area.

Development of NFMA and Integrated Resource Planning Philosophy

Recommendation 7

Statement of Recommendation

All line officers should encourage and facilitate appropriate changes in organization, procedures, and philosophy to strengthen success toward integrated resource planning.

Discussion

The Forest Service's functional organization does not facilitate integrated resource management. Just the fact that our budget is allocated by functional areas and we are accountable to Congress for functional outputs is a major impediment to integrated resource planning. The Chief and/or regional foresters could consider commissioning an outside consulting group to do an

in-depth study of the operational efficiency and effectiveness of the Forest Service as a contemporary organization for integrated resource management. Also, the whole Forest Service needs to know more about the long-term tradeoffs with some of the experimental reoganization efforts being used as on the Allegheny National Forest, where they have reorganized functionally to plan, implement, and administer operations and to effectively communicate, and in the Regional Office of Region 9, where their directors are organized in small clusters to accomplish the region's key strategies.

Recommendation 8

Statement of Recommendation

To strengthen the effectiveness and support for integrated resource management, the Chief and all line officers should make a greater effort to work with members of Congress, the Administration, and all sectors of the public to define and clarify the implications of planning and implementing forest plans as outlined in NFMA.

Discussion

People must understand that NFMA mandates a change in planning focus—under NFMA, we focus less on output levels for specific resources and concentrate on desired future conditions and/or end results. Our line officers should, for example, stress that the focus of national forest planning is now on managing the land to achieve the desired future condition and that the outputs are the result of that management.

Responsibilities of and Participation by People

Recommendation 9

Statement of Recommendation

All line officers should strengthen their recruiting to ensure having talented, creative, and energetic planning leaders with strong interpersonal skills and an aptitude for forest planning.

Discussion

In some cases, people were assigned to interdisciplinary teams with little regard for aptitude or interest in forest planning. Technical expertise is not enough—team members must appreciate other people's values and cultures, they must be sensitive to the human aspects of planning, and they must be effective communicators.

Recommendation 10

Statement of Recommendation

Line officers should ensure that all members of the interdisciplinary teams effectively participate in integrated analysis and solution development for the forest plans.

Discussion

Generally, members of interdisciplinary teams tended to focus on their particular resource—its desired future condition and targets—and did not become involved much in planning for other resources. This resulted in a multidisciplinary rather than an integrated focus. It is only through the give-and-take of open discussion among resource "experts" that truly integrated plans are produced. To accomplish this, interdisciplinary team leaders and forest line officers must be well trained in methods for team-building and consensus-building.

Recommendation 11

Statement of Recommendation

Forest supervisors should assure broad ownership for Forest Service employees of the forest plans and the forest planning process.

Discussion

Just because people had been involved in planning did not mean that they felt any ownership of the plans. We should develop forest plans using a product marketing approach, where we determine who are customers are and what their needs are, and develop a product (plan) that meets those needs. We also must make it clear to Forest Service employees that planning is not something to get out of the way so we can get on with our real work; rather, it should become an integral part of our resource management responsibilities. Involvement in plan development must not be limited to the planners and resource experts, but must include line officers. Line officer involvement was absolutely vital to smooth and successful plan development.

Development and Transmittal of NFMA Policy and Direction

Recommendation 12

Statement of Recommendation

The Chief should set overall policy direction, allowing regional foresters and forest supervisors the flexibility necessary to develop responsive forest plans.

Discussion

Planning direction from the Washington Office was sometimes inappropriate and unrealistic for the local situation, focusing on levels of plan development that were best left to the interdisciplinary teams. The Chief's role should be to set overall policy, provide for quality control and strategic program direction, and avoid micromanagement as it relates to forest planning.

Recommendation 13

Statement of Recommendation

The Chief should strive to provide relevant and timely policy direction.

Discussion

From the beginning, there was confusion as the agency tried to implement planning before the regulations were in place—the process was similar to trying to ride a bicycle and assemble it at the same time. Direction from the Washington Office was often received after that phase of planning had been completed, resulting in false starts and making it impossible to meet the timelines promised. If plans are to be responsive to current issues and concerns and the public, they must be completed in a timely manner.

Recommendation 14

Statement of Recommendation

All line officers should clarify the difference between forest planning direction (mandatory) and advice (discretionary) as it relates to information coming from various levels of the agency.

Discussion

There was considerable confusion over what was required in the forest planning process and what was suggestion or advice from the regions, the Washington Office, and the Department of Agriculture. By clarifying the difference between mandatory direction and advice that allows discretion, line officers can help decrease the frustration for those in planning and sharpen the focus of our planning efforts.

Effects of Planning on People

Recommendation 15

Statement of Recommendation

Regional foresters and forest supervisors must provide a more sensitive and humane organizational environment to help employees address the increased stress, ambiguity, and controversy associated with the land management planning effort.

Discussion

We were told that land management planning was an unbelievably stressful assignment. Some observed that work-related personal problems—for example, divorce, alcoholism, and health problems—occurred more frequently among those involved in planning. If we are to be able to recruit and retain the talented and creative people we need in planning, we must provide the support they need to handle their assignments. We must anticipate problems, monitor conditions, and take preventive actions so that these people can meet the challenges and stress associated with their jobs.

Data and Coordination for Forest Planning

Recommendation 16

Statement of Recommendation

Regional foresters and forest supervisors should be more assertive in defining and collecting relevant inventory data. This means to not develop data bases for areas insignificant to making management decisions and to keep the current data bases up to date, accurate, and ready for use.

Discussion

Although we went to a great deal of effort to build data bases to support land management planning, there was little thought given to the kind and accuracy of data actually needed for planning. Forest supervisors must identify the data relevant to their plans, perform the sensitivity analysis necessary to determine the costs of collecting such data, and, if necessary and feasible, collect the data. Regional foresters must guarantee that there is data consistency between forests and regions where necessary.

Recommendation 17

Statement of Recommendation

Regional foresters and forest supervisors should be allowed to select, within the defined expectations, the planning tools appropriate for land management planning in their regions and on their forests.

Discussion

There was concern that we spent a considerable amount of resources conducting irrelevant analyses on forests simply because that is what everyone else was doing. For example, resources that were initially spent on the Nebraska National Forest to run FORPLAN could have been better spent analyzing issues and concerns more relevant to that forest. Regional foresters and forest supervisors must be given the freedom to select their tools for analysis to ensure that their plans are relevant to local issues and concerns.

Recommendation 18

Statement of Recommendation

Regional foresters and forest supervisors must assure consistency in ecological units between administrative boundaries and consistency in procedural policy where they have situations in common.

Discussion

The definitions of ecological units were not always consistent across administrative boundaries, one example being the way we typed old growth; another example is in the Yellowstone ecosystem complex, where the format, procedures, and type lines did not always agree or connect very well. Correcting this problem will improve our credibility with public and improve coordination within the Forest Service and with other agencies.

Financing of Forest Planning

Recommendation 19

Statement of Recommendation

Forest supervisors should make realistic estimates of the cost of planning. Regional foresters should either fund the forests to do what is expected or coordinate with the forest supervisor to adjust the annual program of work outputs with respect to the amount of time and forest resources that will need to be temporarily diverted to the planning process.

Discussion

The issue of adequate funding for planning varied in importance by region and forest. When resource management and planning are not adequately financed, one or both suffer—either one effort is "robbed" to ensure adequate funds for the other, or commitments to both are only partially met. If we want the public to support our land management planning effort, we must have the funds to demonstrate that we will be able to follow through on the effort.

Establishing Schedules for Forest Planning

Recommendation 20

Statement of Recommendation

Forest supervisors should develop schedules early, based on the decisions to be made, and specify key milestones to be achieved throughout the forest planning process.

Discussion

Although intricate, precise schedules were developed for forest planning; they were developed before anyone really had a good idea of what was involved, and therefore were seldom met. It is key that we first understand the planning process—when decisions will be made or milestones met—and then develop a schedule. When we fail to meet self-imposed schedules, we lose public confidence in the effort. Also, early and realistic scheduling will result in more focused and efficient planning.

Recommendation 21

Statement of Recommendation

Regional foresters should schedule forest plan revisions based on NFMA requirements, monitoring and evaluation results, local and regional conditions and needs, and available resources.

Discussion

Experience with agency-wide forest planning has demonstrated that scheduling plans to be completed within the same time frame places considerable strain on people and resources. By scheduling revision on the basis of need and available resources, we can help ensure that the impacts are spread out over several years, rather than occurring in a lump over 1 or 2 years.

Department, Washington Office, and Regional Oversight

Recommendation 22

Statement of Recommendation

The Chief and regional foresters should expand and strengthen the concept of planning as a profession within the Forest Service (for example, provide and encourage experience in planning at several levels and allow for participation in professional planning societies).

Discussion

Initially, the people providing forest planning oversight—the people who were suppose to provide the answers to our planning questions—added to the planning confusion because they lacked practical planning experience. If we are to have planning quality control, it must be done by someone who has experience in, or a thorough understanding of, planning at all levels, so the advice and oversight provided are helpful and relevant. We should consider reinstituting or broadening the Michigan State University and Oregon State University Fellowship Programs to focus on planning. This would help strengthen the concept of planning as a profession in the Forest Service.

Recommendation 23

Statement of Recommendation

The Chief and regional foresters should ensure that oversight at the Washington Office and regional levels is limited to compliance with laws, regulation, and policy. This should include procedural policy that is appropriate to assure some of the consistency needed within each Region, within a State, within a large ecosystem, or nationally.

Discussion

Oversight provided by the regions and the Washington Office often addressed the tools and specifics of planning. This oversight should be limited to national concerns—laws, regulations, and policy—and should leave actual forest planning to the forests. It is at the forest level that issues, concerns, and desired future conditions need to be developed.

New Items

There is a need to be more sensitive as "futurists" with respect to increasing knowledge about the environment as a whole and the changes in public values and needs. Therefore, we have the following recommendations.

Recommendation 24

Statement of Recommendation

The Chief and regional foresters should ensure that the regional guides are sensitive to the appropriate global issues.

Discussion

It was the perception of the people we talked to that the Forest Service is falling short on its mission to provide leadership in the management of forest resources on all forest lands. Also, forests and districts find themselves struggling to address and understand the agency's vision concerning global issues so they can be adequately considered at the local level. The Chief should take the lead in providing strategies, such as currently outlined in RPA, that address global issues and perspectives to be considered at the local levels.

Recommendation 25

Statement of Recommendation

All line officers need to be more sophisticated in forecasting and evaluating the possible future scenarios affecting natural resource management, and, where appropriate, procedural policies should be developed to ensure that the broader or more global perspective is consistently addressed.

Discussion

To remain a leader in resource management, the Forest Service must be sensitive to possible future trends that will affect it as an agency. We must take a comprehensive look at the data available on future trends—including the aging of the population, increasing urbanization, the changing work force, and the growing interest in bioregionalism and biodiversity—and, where appropriate, take this into account in future forest plans.

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Appendix
Survey Instrument

Team Member _____

QUESTIONNAIRE
for
CRITIQUE OF ORGANIZATION AND ADMINISTRATION OF LMP PROCESS FOR THE FOREST SERVICE

Name _____ Position _____

LMP Experience: _____

_____

_____

Management Experience: _____

_____

_____

I. Strategic Intent

A. Use of people to do the following:

1. Achieve integrated resource plans through the use of functional (conventional) organizations.
   - What was done for initial planning?
   - What evolved as planning took place?
   - What should be done for future planning?

2. Consider cultural diversity within the desired future conditions.
   - What was done for initial planning?
   - What evolved as planning took place?
   - What should be done for future planning?

B. Use of resources to do the following:

1. Evolve from Multiple Use–Sustained Yield Act philosophy to National Forest Management Act philosophy.
   - What was done for initial planning?
   - What evolved as planning took place?
   - What should be done for future planning?

C. Use of management models/structures to do the following:

1. Provide linkages and relationships between national policy development to site specific or project-level planning (i.e., RPA, regional guides, land management plans, project plans).
   - What was done for initial planning?
   - What evolved as planning took place?
   - What should be done for future planning?

2. Provide linkage between plan expectations/outputs and the budgeting process.
   - What was done for initial planning?
   - What evolved as planning took place?
   - What should be done for future planning?

3. Provide for monitoring and evaluation and the need to change forest plans.
   - What was done for initial planning?
   - What evolved as planning took place?
   - What should be done for future planning?

4. Provide for flexibility and dynamic adaptability of plans.
   - What was done for initial planning?
   - What evolved as planning took place?
   - What should be done for future planning?

5. Provide for the appropriate identification, collection, and use of planning information.
   - What was done for initial planning?
   - What evolved as planning took place?
   - What should be done for future planning?

D. For dealing with issues of the future:

1. Planning with a more diversified work force.
   - What was done for initial planning?
   - What evolved as planning took place?
   - What should be done for future planning?

2. Planning with a need for much more public participation and need for local deviations and flexibility.
   - What was done for initial planning?
   - What evolved as planning took place?
   - What should be done for future planning?

3. Dealing with more changes because of perceptions about global issues (i.e., aging of population, technological advances, global warming, demographic shifts).
   - What was done for initial planning?
   - What evolved as planning took place?
   - What should be done for future planning?

II. Tactical Activities for Doing Land Management Planning

A. Organizing:

1. Use and understanding of regional office and Washington Office direction, (e.g., process development, oversight, lead forest component, etc.).
   - What was done for initial planning?
   - What evolved as planning took place?
   - What should be done for future planning?

2. Application of internal and external human resources (e.g, skills, training, experience, expectations, incentive, stress, etc.).
   - What was done for initial planning?
   - What evolved as planning took place?
   - What should be done for future planning?

3. Use of organizational structure (e.g., planning teams).
   - What was done for initial planning?
   - What evolved as planning took place?
   - What should be done for future planning?

4. Allocation of financial resources (e.g., planning budgets versus collateral assignments).
   - What was done for initial planning?
   - What evolved as planning took place?
   - What should be done for future planning?

B. Directing:

1. Effectiveness, consistency, and efficiency of Forest Service organization in transmitting policy and direction to those involved in planning.
   - What was done for initial planning?
   - What evolved as planning took place?
   - What should be done for future planning?

2. Recognition of unique regional and forest opportunities and values and allowing flexibility in dealing with them.
   - What was done for initial planning?
   - What evolved as planning took place?
   - What should be done for future planning?

3. Establishing schedules to meet goals and objectives.
   - What was done for initial planning?
   - What evolved as planning took place?
   - What should be done for future planning?

4. Exercising proper review/oversight to determine if policy and direction are followed.
   - What was done for initial planning?
   - What evolved as planning took place?
   - What should be done for future planning?

C. Controlling:

1. Effectiveness of Washington Office and regional office oversight.
   - What was done for initial planning?
   - What evolved as planning took place?
   - What should be done for future planning?

2. Effectiveness of forest-level management oversight and corrections (including schedules of the planning process).
   - What was done for initial planning?
   - What evolved as planning took place?
   - What should be done for future planning?

3. Balance of priorities between integrated planning and functional objectives (targets).
   - What was done for initial planning?
   - What evolved as planning took place?
   - What should be done for future planning?

Additional Comments, Conclusions, or Philosophy

Wise Use of
Your Natural
Resources